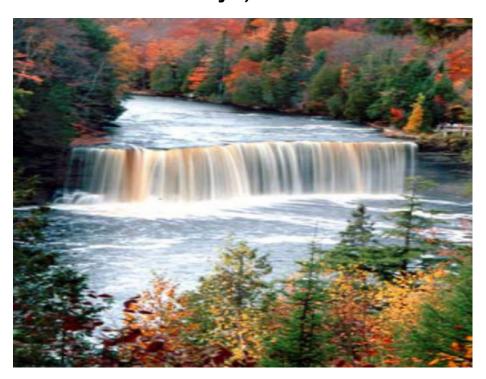
Natural Resources Related Trust Funds Asset Allocation Review

Natural Resources Commission

Policy Committee on Finance and Administration

May 8, 2008



Prepared By Bureau of Investments
Michigan Department of Treasury
April 2008

For any questions on this report, please contact The Bureau of Investments:

517/373-8162 Woodrow Tyler, Acting Deputy Chief Investment Officer

517/373-6722 Paul Nelson, Administrator, Long-Term Fixed Income Division

517/373-9151 Kim Kruszka, Assistant, Long-Term Fixed Income Division

Natural Resources Related Trust Funds Asset Allocation Review Amount Available For Investment and Asset Allocation Targets

Fund		Total Market Value	Amount Available For Investment	Asset Alloca	tion Targets**
No.	Fund Name	as of 3/31/08	at 9/30/07*	Bonds	Equity
124	Game & Fish ProtectionTrust	\$120,987,896	\$111,455,655	50%	50%
129	Natural Resources Trust	\$461,673,735	\$345,313,973	75%	25%
130	State Parks Endowment	\$154,852,453	\$133,529,063	75%	25%
143	Nongame Fish & Wildlife Trust	\$6,524,494	\$6,171,295	90%	10%
	Total	\$744,038,578	\$596,469,986		

^{*}Amounts Provided by DNR 1/10/08.

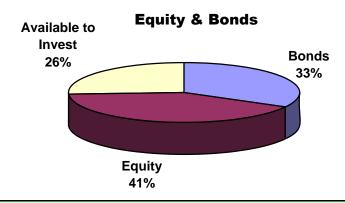
^{**}Ratio Based on Amount Available For Investment.

Natural Resources Related Trust Funds Asset Allocation Review - Asset Allocation By Fund As of March 31, 2008

Asset Class	Game & F Protecti Trust (12	on	Natura Resourc Trust (12	es
	Market Value	%	Market Value	%
Bond Investments	\$37,041,915	33.2%	\$172,895,887	50.1%
Equity Investments	\$45,942,956	41.2%	\$66,722,242	19.3%
Total Bonds + Equity	\$82,984,871	74.5%	\$239,618,129	69.4%
Cash Available For Investment	\$28,470,784	25.5%	\$105,695,844	30.6%
Amount Available For Investment	\$111,455,655	100.0%	\$345,313,973	100.0%
Operating Funds	\$9,532,241		\$116,359,762	
Total For Fund	\$120,987,896		\$461,673,735	

Asset Class	State Pa Endowment		Nongan Fish 8 Wildlife (1	•
	Market Value	%	Market Value	%
Bond Investments	\$75,885,583	56.8%	\$5,394,697	87.4%
Equity Investments	\$28,435,119	21.3%	\$606,943	9.8%
Total Bonds + Equity	\$104,320,702	78.1%	\$6,001,640	97.3%
Cash Available For Investment	\$29,208,361	21.9%	\$169,655	2.7%
Amount Available For Investment	\$133,529,063	100.0%	\$6,171,295	100.0%
Operating Funds	\$21,323,390		\$353,199	
Total For Fund	\$154,852,453		\$6,524,494	

Natural Resources Related Trust Funds Asset Allocation Review - Game & Fish Protection Trust (124) Comparison of Actual Allocation vs. Targeted Allocation As of March 31, 2008



Total Amount Available	1 got 10.		Actual Bond Investments as of March 31, 2008		Difference of Target/Actual	
For Investment*	Ratio	Amount**	Market Value	%**	Market Value	%**
\$111,455,655	50%	\$55,727,828	\$37,041,915	33%	-\$18,685,913	-17%
Total Amount	Та	rget For	Actual Equity Inve	estments	Difference	of
Available	Equity	Investments	as of March 31,	, 2008	Target/Act	ual
For Investment*	Ratio	Amount**	Market Value	%**	Market Value	%**
\$111,455,655	50%	\$55,727,828	\$45,942,956	41%	-\$9,784,872	-9%

^{*}Amount provided by DNR 1/10/08

^{**} Based on Amount Available For Investment

Natural Resources Related Trust Funds Asset Allocation Review - Game & Fish Protection Trust (124)

Estimated Returns For One Year From Now

Scenarios of Return Based on Expected Return Assumptions

Estimated Return For Next One-Year Period Based on Actual Investment Amounts/Ratios as of 3/31/08						
Asset Class	Actual Market Value 03/31/2008	Actual % of Total*	Expected Return	Expected Risk	Est. One Year Increase in Market Value**	Estimated Market Value 03/31/2009
Bonds	\$37,041,915	33%	5.00%	4.25%	\$1,852,096	\$38,894,011
Equity	\$45,942,956	41%	8.00%	16.50%	\$3,675,436	\$49,618,392
Total Bonds + Equity	\$82,984,871	74%			\$5,527,532	\$88,512,403
Cash Available For Investment	\$28,470,784	26%	3.25%	1.00%	\$925,300	\$29,396,084
Targeted Investment Amount	\$111,455,655	100%			\$6,452,833	\$117,908,488
Operating Funds	\$9,532,241					
Total Market Value	\$120,987,896					

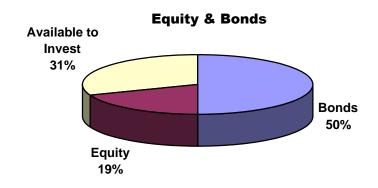
Estimated Return For Next One-Year Period Based on Established Targets Per Amount Available For Investment as of 9/30/07							
Asset Class	Targeted Investment Market Value	Targeted % of Total*	Expected Return	Expected Risk	Est. One Year Increase in Market Value**	Estimated Market Value 03/31/2009	
Bonds	\$55,727,828	50%	5.00%	4.25%	\$2,786,391	\$58,514,219	
Equity	\$55,727,828	50%	8.00%	16.50%	\$4,458,226	\$60,186,054	
Total Bonds + Equity	\$111,455,655	100%			\$7,244,618	\$118,700,273	
Operating Funds	\$9,532,241		3.25%	1.00%			
Total Market Value	\$120,987,896						

^{*}Based on Amount Available For Investment provided by DNR 1/10/08.

^{**}One Year Period 3/31/08 to 3/31/09

Prepared by Bureau of Investments, Michigan Department of Treasury

Natural Resources Related Trust Funds Asset Allocation Review - Natural Resources Trust (129) Comparison of Actual Allocation vs. Targeted Allocation As of March 31, 2008



Total Amount Target for Available Bond Investments		Actual Bond Inve as of March 31	Difference of Target/Actual			
For Investment*	Ratio	Amount**	Market Value	%**	Market Value	% **
\$345,313,973	75%	\$258,985,480	\$172,895,887	50%	-\$86,089,593	-25%
Total Amount	Ta	arget For	Actual Equity Inve	estments	Difference	of
Available	Equity	Investments	as of March 31	, 2008	Target/Act	ual
For Investment*	Ratio	Amount**	Market Value	%**	Market Value	% **
\$345,313,973	25%	\$86,328,493	\$66,722,242	19%	-\$19,606,251	-6%

^{*}Amount provided by DNR 1/10/08

^{**} Based on Amount Available For Investment

Natural Resources Related Trust Funds Asset Allocation Review - Natural Resources Trust (129)

Estimated Returns For One Year From Now

Scenarios of Return Based on Expected Return Assumptions

Estimated Return For Next One-Year Period Based on Actual Investment Amounts/Ratios as of 3/31/08						
Asset Class	Actual Market Value 03/31/2008	Actual % of Total*	Expected Return	Expected Risk	Est. One Year Increase in Market Value**	Estimated Market Value 03/31/2009
Bonds	\$172,895,887	50%	5.00%	4.25%	\$8,644,794	\$181,540,681
Equity	\$66,722,242	19%	8.00%	16.50%	\$5,337,779	\$72,060,021
Total Bonds + Equity	\$239,618,129	69%			\$13,982,574	\$253,600,703
Cash Available For Investment	\$105,695,844	31%	3.25%	1.00%	\$3,435,115	\$109,130,959
Targeted Investment Amount	\$345,313,973	100%			\$17,417,689	\$362,731,662
Operating Funds	\$116,359,762					
Total Market Value	\$461,673,735					

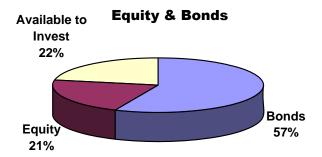
Estimated Return For Next One-Year Period Based on Established Targets Per Amount Available For Investment as of 9/30/07						
Asset Class	Targeted Investment Market Value	Targeted % of Total*	Expected Return	Expected Risk	Est. One Year Increase in Market Value**	Estimated Market Value 03/31/2009
Bonds	\$258,985,480	75%	5.00%	4.25%	\$12,949,274	\$271,934,754
Equity	\$86,328,493	25%	8.00%	16.50%	\$6,906,279	\$93,234,772
Total Bonds + Equity	\$345,313,973	100%			\$19,855,553	\$365,169,526
Operating Funds Total Market Value	\$116,359,762 \$461,673,735		3.25%	1.00%		

^{*}Based on Amount Available For Investment provided by DNR 1/10/08

^{**}One Year Period 3/31/08 to 3/31/09

Prepared by Bureau of Investments, Michigan Department of Treasury

Natural Resources Related Trust Funds Asset Allocation Review - State Parks Endowment (130) Comparison of Actual Allocation vs. Targeted Allocation As of March 31, 2008



Total Amount Target for Available Bond Investments		Actual Bond Investments as of March 31, 2008		Difference of Target/Actual		
For Investment*	Ratio	Amount**	Market Value	%**	Market Value	%**
\$133,529,063	75%	\$100,146,797	\$75,885,583	57%	-\$24,261,214	-18%
Total Amount	Ta	arget For	Actual Equity Inve	estments	Difference	of
Available	Equity	Investments	as of March 31,	2008	Target/Act	ual
For Investment*	Ratio	Amount**	Market Value	%**	Market Value	%**
\$133,529,063	25%	\$33,382,266	\$28,435,119	21%	-\$4,947,147	-4%

^{*}Amount provided by DNR 1/10/08

^{**} Based on Amount Available For Investment

Natural Resources Related Trust Funds Asset Allocation Review - State Parks Endowment (130)

Estimated Returns For One Year From Now

Scenarios of Return Based on Expected Return Assumptions

	Estimate Based on Actua	ed Return For N			/08	
Asset Class	Actual Market value 03/31/2008	Actual % of Total*	Expected Return	Expected Risk	Est. One Year Increase in Market Value**	Estimated Market Value 03/31/2009
Bonds	\$75,885,583	57%	5.00%	4.25%	\$3,794,279	\$79,679,862
Equity	\$28,435,119	21%	8.00%	16.50%	\$2,274,810	\$30,709,929
Total Bonds + Equity	\$104,320,702	78%			\$6,069,089	\$110,389,791
Cash Available For Investment	\$29,208,361	22%	3.25%	1.00%	\$949,272	\$30,157,633
Targeted Investment Amount	\$133,529,063	100%			\$7,018,360	\$140,547,423
Operating Funds	\$21,323,390					
Total Market Value	\$154,852,453					

	Targeted		4 . 4		Est. One Year	Estimated
Asset Class	Investment Market Value	Targeted % of Total*	Expected Return	Expected Risk	Increase in Market Value**	Market Value 03/31/2009
Bonds	\$100,146,797	75%	5.00%	4.25%	\$5,007,340	\$105,154,13
Equity	\$33,382,266	25%	8.00%	16.50%	\$2,670,581	\$36,052,84
Total Bonds + Equity	\$133,529,063	100%			\$7,677,921	\$141,206,98
Operating Funds	\$21,323,390		3.25%	1.00%		
Total Market Value	\$154,852,453					

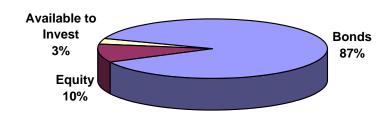
^{*}Based on Amount Available For Investment provided by DNR 1/10/08

^{**}One Year Period 3/31/08 to 3/31/09

Prepared by Bureau of Investments, Michigan Department of Treasury

Natural Resources Related Trust Funds Asset Allocation Review - Nongame Fish & Wildlife Trust (143) Comparison of Actual Allocation vs. Targeted Allocation As of March 31, 2008

Equity & Bonds



Total Amount Available		arget for Investments	Actual Bond Inves as of March 31,	Difference of Target/Actual			
For Investment*	Ratio	Amount**	Market Value	%**	Market Value	%**	
\$6,171,295	90%	\$5,554,166	\$5,394,697	87%	-\$159,469	-3%	
Total Amount	Та	rget For	Actual Equity Inve	Difference of			
Available	Equity	Investments	as of March 31,	Target/Actual			
For Investment*	Ratio	Amount**	Market Value	%**	Market Value	%**	
\$6,171,295	10%	\$617,130	\$606,943	10%	-\$10,187	-1%	

^{*}Amount provided by DNR 1/10/08

^{**} Based on Amount Available For Investment

Natural Resources Related Trust Funds Asset Allocation Review - Nongame Fish & Wildlife (143)

Estimated Returns For One Year From Now

Scenarios of Return Based on Expected Return Assumptions

Estimated Return For Next One-Year Period Based on Actual Investment Amounts/Ratios as of 3/31/08												
Asset Class	Actual Market Value 03/31/2008	Actual % of Total*	Expected Return	Expected Risk	Est. One Year Increase in Market Value**	Estimated Market Value 03/31/2009						
Bonds	\$5,394,697	87%	5.00%	4.25%	\$269,735	\$5,664,432						
Equity	\$606,943	10%	8.00%	16.50%	\$48,555	\$655,498						
Total Bonds + Equity	\$6,001,640	97%			\$318,290	\$6,319,930						
Cash Available For Investment	\$169,655	3%	3.25%	1.00%	\$5,514	\$175,169						
Targeted Investment Amount	\$6,171,295	100%			\$323,804	\$6,495,099						
Operating Funds	\$353,199											
Total Market Value	\$6,524,494											

Estimated Return For Next One-Year Period Based on Established Targets Per Amount Available For Investment as of 9/30/07											
Asset Class	Targeted Investment Market Value	Targeted % of Total*	Expected Return	Expected Risk	Est. One Year Increase in Market Value**	Estimated Market Value 03/31/2009					
Bonds	\$4,628,471	90%	5.00%	4.25%	\$231,424	\$4,859,895					
Equity	\$1,542,824	10%	8.00%	16.50%	\$123,426	\$1,666,250					
Total Bonds + Equity	\$6,171,295	100%			\$354,849	\$6,526,144					
Operating Funds	\$353,199		3.25%	1.00%							
Total Market Value	\$6,524,494										

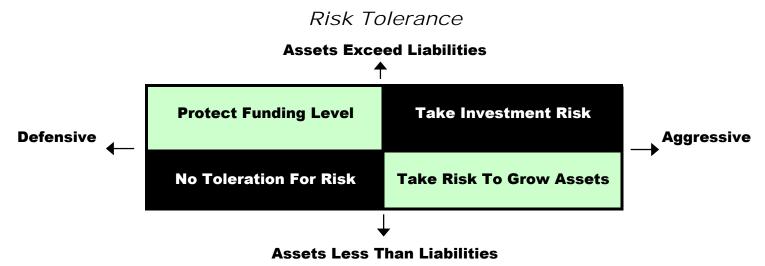
^{*}Based on Amount Available For Investment provided by DNR 1/10/08.

^{**}One Year Period 3/31/08 to 3/31/09

Prepared by Bureau of Investments, Michigan Department of Treasury

Natural Resources Related Trust Funds Asset Allocation Review - A Balance Between Risk and Return





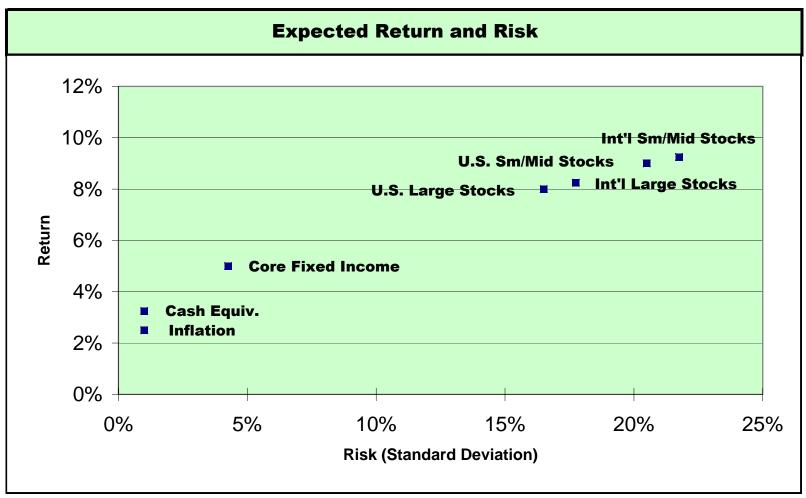
Natural Resources Related Trust Funds Asset Allocation Review - Expected Return Assumptions Ten-Year Time Horizon

Return/Risk Assumptions By Asset Class*Asset ClassReturn Assumptions ArithmeticRisk Assumptions (Std. Dev.)U.S. Stocks/Equity - Large Cap8.00%16.50%U.S. Stocks/Equity - Small/Mid Cap9.00%20.50%U.S. Core Fixed Income**5.00%4.25%Cash Equivalents3.25%1.00%Developed Large Cap International Equity8.25%17.75%						
Asset Class	-					
U.S. Stocks/Equity - Large Cap	8.00%	16.50%				
U.S. Stocks/Equity - Small/Mid Cap	9.00%	20.50%				
U.S. Core Fixed Income**	5.00%	4.25%				
Cash Equivalents	3.25%	1.00%				
Developed Large Cap International Equity	8.25%	17.75%				
Developed International Small/Mid Cap Equity	9.25%	21.75%				
Inflation	2.50%	1.00%				

^{*}Source RV Kuhns & Associates

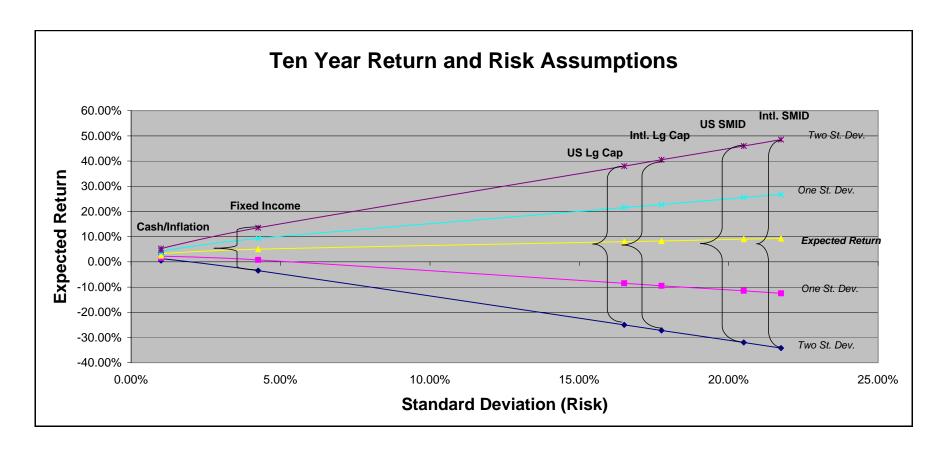
 $^{^{**}}$ Fixed Income Composite is assumed to be comprised of 85% U.S. Core Fixed Income, 5% Non-U.S. Fixed Income, and 10% High Yield.

Natural Resources Related Trust Funds Asset Allocation Review - Expected Return and Risk



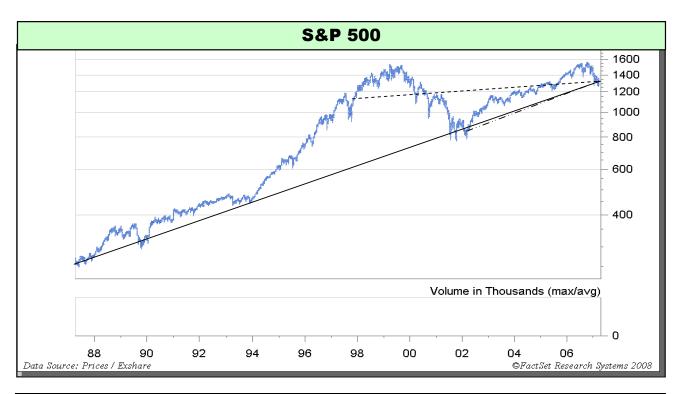
Source: RV Kuhns & Associates

Natural Resources Related Trust Funds Asset Allocation Review - Ten-Year Return and Risk Assumptions



Natural Resources Related Trust Funds

Asset Allocation Review - *A Look at the S&P 500 Over the Last 20 Years* **Time Periods Ending March 31, 2008**



S&P 500 Return								
Time Period	Annualized Return	Line Style						
5 Year	11.32%							
10 Year	3.50%							
20 Year	10.92%							

Natural Resources Related Trust Funds

Asset Allocation Review - *Total Return On Equities By Year*

S&P 500 Annual Total Return											
		Total			Total		Total				
Yea	ar	Return		Year	Return	Year	Return				
192	26	11.6%		1953	-1.0%	1980	32.4%				
192	27	37.5%		1954	52.6%	1981	-4.9%				
192	28	43.6%		1955	31.6%	1982	21.4%				
192	29	-8.4%		1956	6.6%	1983	22.5%				
193		-24.9%		1957	-10.8%	1984	6.2%				
193	31 A	-43.3%		1958	43.4%	1985	32.2%				
193	32	-8.1%		1959	12.0%	1986	18.5%				
193	33	53.9%		1960	0.5%	1987	5.2%				
193	34	-1.4%		1961	26.9%	1988	16.8%				
193	35	47.6%		1962	-8.7%	1989	31.5%				
193	36	34.0%		1963	22.9%	1990	-3.2%				
193	37	-35.0%		1964	16.4%	1991	30.5%				
193	38	31.1%	_	1965	12.5%	1992	7.7%				
193	-	-0.4%		1966	-10.1%	1993	10.0%				
194	¹⁰ E	•		1967	24.0%	1994	1.3%				
194		-11.6%		1968	11.1%	1995	37.4%				
194	12	20.3%		1969	-8.5%	1996	23.1%				
194	13	25.9%		1970	4.0%	1997	33.4%				
194	14	19.7%		1971	14.3%	1998	28.6%				
194	l 5	36.4%	_	1972	19.0%	1999	21.0%				
194	ŀ6	-8.1%		1973	-14.7%	2000	-9.1%				
194	17	5.7%		1974	c -26.5%	2001	D -11.9%				
194	18	5.5%		1975	37.2%	2002	-22.1%				
194	19	18.8%		1976	23.8%	2003	28.7%				
195	50	31.7%		1977	-7.2%	2004	10.9%				
195	51	24.0%		1978	6.6%	2005	4.9%				
195	52	18.4%		1979	18.4%	2006	15.8%				
						2007	5.5%				

S&P 500 - Single Down Years											
Single Dov	vn Years	Followi	ng Year								
	Total	•	Total								
Year	Return	Year	Return								
1934	-1.4%	1935	47.6%								
1937	-35.0%	1938	31.1%								
1946	-8.1%	1947	5.7%								
1953	-1.0%	1954	52.6%								
1957	-10.8%	1958	43.4%								
1962	-8.7%	1963	22.9%								
1966	-10.1%	1967	24.0%								
1969	-8.5%	1970	4.0%								
1977	-7.2%	1978	6.6%								
1981	-4.9%	1982	21.4%								
1990	-3.2%	1991	30.5%								
Average	-8.99%	Average	26.35%								

Кеу										
A B C D	Great Depression Start WWII Stagflation Dot Com Bubble									

Annual Total Returns of Key Asset Classes 1987 - 2007

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
Best	Small Value Stocks 29.47%	Large Growth Stocks 36.40%	U.S. Bonds 8.96%	Small Growth Stocks 51.18%	Small Value Stocks 29.15%	Foreign Stocks 32.57%	Foreign Stocks 7.78%	Large Growth Stocks 38.13%	Large Growth Stocks 23.97%	Large Growth Stocks 36.52%	Large Growth Stocks 42.16%	Small Growth Stocks 43.09%	Small Value Stocks 22.83%	Small Value Stocks 14.02%	U.S. Bonds 10.26%	Small Growth Stocks 48.54%	Small Value Stocks 22.25%	Foreign Stocks 13.54%	Foreign Stocks 26.34%	Foreign Stocks 11.17%	Best
	Foreign Stocks 28.26%	Large Stocks 31.69%	Cash 7.81%	Small Stocks 46.05%	Small Stocks 18.42%	Small Value Stocks 23.86%	Cash 3.90%	Large Stocks 37.58%	Large Stocks 22.96%	Large Stocks 33.36%	Large Stocks 28.58%	Large Growth Stocks 28.25%	U.S. Bonds 11.63%	U.S. Bonds 8.44%	Cash 1.65%	Small Stocks 47.25%	Foreign Stocks 20.25%	Large Value Stocks 6.33%	Small Value Stocks 23.48%	Large Growth Stocks 9.13%	
	Small Stocks 24.89%	Large Value Stocks 26.13%	Large Growth Stocks 0.20%	Small Value Stocks 41.70%	Large Value Stocks 10.52%	Small Stocks 18.89%	Large Growth Stocks 3.14%	Large Value Stocks 36.99%	Large Value Stocks 22.00%	Small Value Stocks 31.78%	Foreign Stocks 20.00%	Foreign Stocks 26.96%	Large Value Stocks 6.08%	Cash 3.83%	Small Value Stocks -11.42%	Small Value Stocks 46.03%	Small Stocks 18.33%	Large Stocks 4.91%	Large Value Stocks 20.80%	Small Growth Stocks 7.05%	
	Large Value Stocks 21.67%	Small Growth Stocks 20.16%	Large Stocks	Large Growth Stocks 38.37%	Small Growth Stocks 7.77%	Large Value Stocks 18.61%	Large Stocks 1.32%	Small Growth Stocks 31.04%	Small Value Stocks 21.37%	Large Value Stocks 29.98%	Large Value Stocks 14.69%	Small Stocks 21.26%	Cash 5.89%	Small Stocks 2.49%	Foreign Stocks	Foreign Stocks 38.59%	Large Value Stocks 15.71%	Small Value Stocks 4.71%	Small Stocks 18.37%	U.S. Bonds 6.97%	
	Small Growth Stocks 20.38%	Small Stocks 16.25%	Large Value Stocks -6.85%	Large Stocks 30.47%	Large Stocks 7.62%	Small Growth Stocks 13.37%	Large Value Stocks -0.64%	Small Stocks 28.44%	Small Stocks 16.53%	Small Stocks 22.36%	U.S. Bonds 8.70%	Large Stocks 21.04%	Small Stocks	Small Growth Stocks -9.23%	Large Value Stocks -19.99%	Large Value Stocks 31.78%	Small Growth Stocks 14.31%	Small Stocks 4.55%	Large Stocks 15.80%	Large Stocks 5.49%	
	Large Stocks 16.61%	U.S. Bonds 14.53%	Small Growth Stocks -17.42%	Large Value Stocks 22.56%	U.S. Bonds 7.40%	Large Stocks 10.08%	Small Value Stocks -1.55%	Small Value Stocks 25.75%	Small Growth Stocks 11.32%	Small Growth Stocks 12.93%	Cash 4.86%	Large Value Stocks 12.72%	Large Stocks	Large Value Stocks -11.69%	Small Stocks	Large Stocks 28.68%	Large Stocks 10.88%	Small Growth Stocks 4.15%	Small Growth Stocks 13.35%	Cash 4.74%	
	Large Growth Stocks 11.95%	Small Value Stocks 12.43%	Small Stocks -19.50%	U.S. Bonds 16.00%	Large Growth Stocks 5.06%	U.S. Bonds 9.75%	Small Stocks -1.81%	U.S. Bonds 18.46%	Foreign Stocks 6.05%	U.S. Bonds 9.64%	Small Growth Stocks 1.23%	Cash 4.68%	Foreign Stocks -13.96%	Large Stocks	Large Stocks	Large Growth Stocks 25.66%	Large Growth Stocks 6.13%	Large Growth Stocks 3.46%	Large Growth Stocks 11.01%	Large Value Stocks 1.99%	
	U.S. Bonds 7.89%	Foreign Stocks 10.53%	Small Value Stocks- 21.77%	Foreign Stocks	Cash 3.51%	Cash 2.90%	Small Growth Stocks -2.44%	Foreign Stocks	Cash 5.21%	Cash 5.26%	Small Stocks	U.S. Bonds	Large Growth Stocks -22.08%	Large Growth Stocks -12.75%	Large Growth Stocks -22.77%	U.S. Bonds 4.10%	U.S. Bonds 4.34%	Cash 2.98%	Cash 4.75%	Small Stocks	
Worst	Cash 6.35%	Cash 8.37%	Foreign Stocks	Cash 5.60%	Foreign Stocks	Large Growth Stocks 1.68%	U.S. Bonds	Cash 5.60%	U.S. Bonds 3.64%	Foreign Stocks	Small Value Stocks -6.46%	Small Value Stocks -1.48%	Small Growth Stocks -22.43%	Foreign Stocks	Small Growth Stocks -30.26%	Cash 1.02%	Cash 1.20%	U.S. Bonds 2.43%	U.S. Bonds 4.33%	Small Value Stocks -9.78%	Worst

